REMARKS

Amendments in the claims

Following entry of the amendment requested herein, Claims 28-36, 38-41, 45-48, 52-56 are pending. Of the pending Claims, Claims 38-40, 45-48, 52-56 are withdrawn. Claims 1-27 and Claim 42 were cancelled previously and Claims 37, 43-44, 49-51 and 57-59 are cancelled herein.

Claim 28 is amended herein to focus on an embodiment of commercial interest wherein the transdermal therapeutic system comprises rotigotine free-base, *i.e.*, rotigotine in base form. No admission is made by the present amendment that Claim 28 as previously presented was not patentable. Applicant reserves the right to pursue any cancelled subject matter in one or more continuation applications.

Claims 29-30, 34-36, 45-47, 52, 55 and 56 are amended to conform to Claim 28 as amended herein.

Claim 30 is amended to correct a typographical error.

No new matter is added, and no change in inventorship is believed to occur, as a result of any amendment herein.

RESPONSE TO OFFICE ACTION DATED 21 JULY 2009

A. Rejection under 35 U.S.C. §103(a) – Ulman in view of Müller

Claims 28-32, 34-37, and 41 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,658,975 ("Ulman") in view of U.S. Patent No. 6,620,429 ("Müller"). The rejection is respectfully traversed.

The Office Action has maintained the present obviousness rejection over the alleged combination of Ulman and Müller stating:

> "Since independent claim 28 is not restricted to rotigotine or rotigotine in base form, but includes an undefined prodrug which can potentially impart any characteristic upon the drug, examiner respectfully submits that the Ulman reference reads on the instant application as currently claimed." (emphasis added) (Action, p. 10)

In the interest of advancing prosecution, Applicant has amended Claim 28 to rotigotine free-base. It is irrelevant whether a prodrug of rotigotine is suitable for use in Ulman because the reason or motivation to combine references must be based on the references only and cannot be constructed in view of Applicant's disclosure. *ATD Corporation v. Lydall, Inc.*, 159 F.3d

534, 48 USPQ2d 1321 (Fed. Cir. 1998) (emphasis added). The relevant inquiry is: Does Ulman teach or suggest using a prodrug of rotigotine in a TTS as claimed in Claim 28? However, the question is now moot because Claim 28 is amended herein and as it stands, Ulman expressly provides a hydrophilic composition for improved use of hydrophilic drugs, which does not include lipophilic drugs, such as the lipophilic rotigotine free-base. Therefore, Applicant maintains the arguments presented in the responses to Office Actions dated 18 Sept 2009 and 22 Jan 2009 and summarized below.

1. **Ulman and Müller are incompatible**

A person of ordinary skill would not look to combine a lipophilic drug (*e.g.*, rotigotine free-base) with a hot-melt adhesive expressly designed for improved performance with hydrophilic drugs (Ulman's system). The Ulman and Müller teachings actually run counter to a finding of obviousness, as one of ordinary skill in the art would be dissuaded from selecting and joining the incompatible features of these teachings. See *In re Grasselli*, 713 F.2d 731, 218 USPQ 769 (Fed. Cir. 1983) (improper to combine references where the references teach away from their combination).

2. **No reason to reconcile the mismatched aspects of Ulman and Müller**

MPEP § 2143 states that "[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious," which should be made explicit, as directed by *KSR Int'l Co. v. Teleflex Inc.* In this case, there is no reason provided in the present rejection as to how or why a person of ordinary skill would or could reconcile the mismatched aspects of Müller and Ulman. See *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983) (improper to combine references where the references teach away from their combination). The motivation asserted to use the Ulman composition is "because the amount of drug release from the transdermal formulation can be increased or controlled". (Action, p. 6, lines 2-3; and see Ulman col. 1, lines 61-67. This is in direct reference to hydrophilic compositions for use with hydrophilic drugs. As such, the stated motivation in the present rejection is directly tied to hydrophilic drugs, not lipophilic drugs like rotigotine free-base. Based on this motivation, one of ordinary skill in the art would follow Ulman for improved hydrophilic drug performance and would consider Ulman unfit for use with rotigotine free-base.

**3. No reasonable expectation of success because Ulman expressly teaches a hydrophilic composition**

Because one of ordinary skill in the art would view rotigotine free-base as an unsuitable choice for use in the hydrophilic composition of Ulman, there can be no reasonable expectation of success from the asserted combination of Ulman and Müller. See *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143, 148 (C.C.P.A. 1976) (obviousness requires a reasonable expectation of success and the alleged combination cannot be said to be "inherently" successful). Moreover, as noted above, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Further, the assertion that "[U]lman does not preclude use of lipophilic drugs in the disclosed adhesive composition" (Action, p. 10), does not amount to a reasonable expectation that rotigotine free-base would be successful in the hydrophilic composition of Ulman. This assertion fails to address the present issue – identification of a reason by which one of ordinary skill in the art would in fact select and combine Ulman and Müller. See *In re Kahn*, 441 F3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning to support the legal conclusion of obviousness."). The lack of an express statement prohibiting use of lipophilic drugs in Ulman is not enough to overcome the expressly noted tailoring and function of the Ulman composition for improved performance with hydrophilic drugs; *i.e.*, Ulman's silence does not overcome the expressly stated (and contrary) purpose of Ulman. In any event, there is a strong presumption that the Ulman composition would work only with hydrophilic drugs, as this property is diametrically opposed to favoring hydrophobic substances. Properly viewing the references, without the benefit of the present claims, it is an improper stretch to assert one of ordinary skill in the art would have used the hot-melt composition of Ulman in seeking a suitable vehicle for the lipophilic rotigotine free-base. Although "[t]ransdermal drug delivery is influenced by many factors," there is no reasonable expectation of success in combining the Ulman composition with rotigotine free-base.

Accordingly, Ulman and Müller do not establish a presumption of *prima facie* obviousness as to Claims 28-32, 34-37, and 41. Applicant respectfully requests reconsideration of the claims and withdrawal of the rejection.

B. Rejection under 35 U.S.C. §103(a) – Ulman in view of Müller & Noel

Claims 28 and 33 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,658,975 ("Ulman") in view of U.S. Patent No. 6,620,429 ("Müller"), further in view of U.S. Patent No. RE 36,754 ("Noel"). The rejection is respectfully traversed.

Applicant maintains the arguments presented in the responses dated 18 Sept 2008 and 22 Jan 2009. Claims 28 and 33 are not obvious over Ulman in view of Müller and Noel at least because there is no apparent reason for a person of ordinary skill in the art to combine these references in order to arrive at the present claims. Applicant has amended Claim 28 to recite rotigotine free-base which is hydrophobic. As described in the preceding section, Ulman teaches an adhesive composition tailored for hydrophilic drugs whereas Müller discloses the lipophilic (*i.e.*, hydrophobic) drug rotigotine. There is no basis for person of ordinary skill in the art to combine features of these references to arrive at the instant claims; moreover a person of ordinary skill in the art would not have a reasonable expectation of success in doing so. Addition of the Noel document fails to cure these defects and the combination hence fails to establish a *prima facie* case of obviousness.

As stated previously, Noel is provided for teaching use of the waxes ozokerite and ceresine to decrease dynamic viscosity of a hot-melt pressure-sensitive adhesive at temperatures up to 200°C. Noel, abstract; col. 5, lines 1 and 12–14. However, a person of ordinary skill in the art would not in the first place add the hydrophobic drug rotigotine free-base, to the hot-melt pressure-sensitive adhesive composition of Ulman, which is tailored for hydrophilic drugs, with or without further addition of the wax disclosed by Noel. As described in the preceding section, the premise for combining the pressure-sensitive adhesive of Ulman with rotigotine free-base is flawed – a skilled artisan would not seek to (1) adopt and then (2) adapt an adhesive designed for hydrophilic drug delivery to use with the hydrophobic drug rotigotine free-base as these elements have antithetical properties. Moreover, one of ordinary skill in the art would not have a reasonable expectation of success

in making such a combination that would approximate Applicant's claims. The waxes disclosed in Noel do not reconcile the disparate teachings of Ulman and Müller, hence the asserted combination does not establish a presumption of *prima facie* obviousness as to Claims 28 and 33.

Accordingly, Claim 28 and Claim 33 dependent therefrom are not obvious over Ulman in view of Müller and further in view of Noel. Withdrawal of the present rejection is respectfully requested.

C. Provisional obviousness-type double patenting

Claims 28-37 and 42 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-23 of co-pending U.S. Application Serial No. 10/630,633 ('633).

Claims 28-37 and 42 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 15-36 of copending Application No. 10/139,894 ('894).

Claims 28-37 and 42 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12 of copending Application No. 10/140,096 ('096).

Claims 28-37 and 42 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/139,894 ('894).

Claims 28-37 and 42 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-120 of copending Application No. 11/239,701 ('701).

Claims 28-37 and 42 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-110 of copending Application No. 11/239,772 ('772).

Applicant maintains that any substantive argument (or terminal disclaimer) to overcome a provisional double patenting rejection is not necessary at this time. However, in Applicant's response dated 22 Jan 2009, Applicant elected to make the following observations in the interest of advancing prosecution.

Claim 28 of the present application, from which all other claims presently in consideration depend, contains the limitation that the hot-meltable adhesive component of the TTS matrix is one "exhibiting at 160°C a dynamic viscosity of not more than 100 Pa·s." This limitation is not found in any reference claim applied in the present rejection. No rationale is presented in the Office Action dated 28 May 2008 for one of ordinary skill in the art to modify any cited-application claim to add this limitation.

The importance of a suitably low dynamic viscosity (as presently claimed, not greater than 100 Pa·s) at 160°C is explained in the present specification, for example at pp. 11–12 thereof. In essence, rotigotine has been found by the present inventors to be stable under short-term heating to 160°C and to lend itself well to hot-melt processing up to that temperature (specification, p. 8, last two paragraphs). Many adhesives are not suitable for processing by the hot-melt method at temperatures up to 160°C because of excessively high viscosity at such temperatures. The selection of an adhesive system having a viscosity not greater than 100 Pa·s at 160°C for use with rotigotine is non-obvious over the claims of each of the reference applications. Each of the present provisional obviousness-type double patenting rejections is traversed at least on this ground.

In response, the Office has not accepted this rationale stating: "The Ulman composition, like the instantly claimed composition, is comprised of a drug-containing adhesive matrix and a softener..." (Office Action, p. 11) Applicant respectfully reminds the Office that the present provisional double patenting rejections are not over Ulman but the commonly owned patent applications. Applicant maintains that the selection of an adhesive system having a viscosity not greater than 100 Pa·s at 160°C for use with rotigotine is non-obvious over the claims of each of the cited-applications. Withdrawal of all of the above rejections is respectfully requested.

D. Conclusion

It is believed that all of the stated grounds of rejection are properly traversed, accommodated, or rendered moot herein. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the present Action and that the application is in condition for allowance.